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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,221	08/19/2003	Yasuhiro Yoshioka	2870-0264P	3448
2292	7590	05/20/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,221

Applicant(s)

YOSHIOKA ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08192003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The antecedent basis for the term "the compound" in A and B in claim 1 is unclear because of the language in line 5 "(a)nd one or more compounds wherein all of said one or more compounds satisfy the following requirements A and B". Since there are more than one compounds, the antecedent basis for the compound in A and B is indefinite. The claim is unclear whether the compounds having structure in A having a hydrogen bond formation rate constant K_f of 20-4000 or the compounds other than those in B having the requirements satisfy A and B. The specification appears to be silence with respect to the compound other than those recited in B having characteristic stated in A. If the compound of formula in B having characteristic in A, the claims should be wording as " the compound of formula (II) to (V) or the compound having phosphoryl group having a hydrogen bond formation rate constant K_f .

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-6, 9-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kirk et al (Kirk).

The invention as claimed has been known in Kirk in columns 12-13, claims 1-6. The material of Kirk contains compound within the scope of formula (V) and (I) of the claimed invention. Kirk fails to state that the compound meet the requirement in A., but due to the similarity of the structure, the condition in A would be inherent to compound of formula in claim 1 of Kirk, and in the absence of showing otherwise, it is asserted that the invention as claimed would be anticipated or found obvious to the worker of ordinary skill in the art.

6. Claims 1-5, 10-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kato (US Patent No. 6,174,663) .

Kato in example 1 discloses the photothermographic material containing a compound having phosphoryl group and a phenol compound as reducing within the scope of the claimed invention. Kato fails to state that the compound meet the requirement in A., but due to the similarity of the phosphoryl group, the condition in A would be inherent to compound of formula in Example 1 of

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Kato, and in the absence of showing otherwise, it is asserted that the invention as claimed would be anticipated or found obvious to the worker of ordinary skill in the art.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tsuzuki and Milton.

Tsuzuki discloses a photothermographic compound substantially as claimed. See especially the composition of the photothermographic material in column 23-26, claims 1-13. Claim 12 and the specification in column 20 discloses the use of phenol compound as reducing agent. The use of antifoggant to protect silver halide emulsion from forming fog is disclosed in column 17, lines 13-30. Tsuzuki fails to disclose the compound having phosphoryl group of the claimed invention, but the compound containing a phosphoryl group have been known in Milton as antifoggant for silver halide emulsion. See Milton in columns 8-9, compound in claims 2 and 9. it would have been obvious to the worker of ordinary skill in the art to use the antifoggant compound taught in Milton to protect silver halide emulsion taught in Tsuzuki from forming fog, and thereby provide a material as claimed.

9. Claims 1-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miura et al (Miura).

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Miura discloses a photothermographic material having composition similar to that of the claimed invention. Note for instance the material in column 47-50, example 1, and sample in Table 1, which contains a phenol compound as reducing agent and a pyridine compound such as 2-tribomomethylsulfonylpyridine. The hindered phenol compounds are preferred reducing agent is disclosed in column 31-32. The compound containing a pyridine group and quinoline group in columns 11-12, 17-18; the compound in column 10, A2; the compound in column 36, A29, the compound in columns 15-16, B1 to B12 contains an amino group and a carbonyl group. These compounds are similar to that of the groups presented in the specification as having hydrogen bond formation rate constant k_f of 20-4000. Thus, the compound having having hydrogen bond formation rate constant k_f of 20-4000 presented in the claimed invention is inherent to that taught in Miura. In the absence of showing otherwise, the examiner asserts that the claimed invention is either anticipated or would have been prima facie obvious over Miura.

10. Claims 1-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 083764 (EP'764).

See EP on pages 2, compounds R-I-51; R-I-52 and the polyphenol compound associated therewith; page 20, lines 39-54 which discloses a compound containing an hererocylcic groups. Examples 2 on pages 32-35 which contains dye (1-f) on page 33 and phenol developing agent- on page 35. The dye (1-f) is within the scope of formula (II) of the present claimed invention. EP'764 fails to state that the compound meet the requirement in A., but due to the similarity of the structure, the condition in A would be inherent to dye (1-f) of EP'764, and in the absence of showing otherwise, it is asserted that the invention as claimed would be anticipated or found obvious to the worker of ordinary skill in the art. Alternatively, it would have been obvious to

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the worker of ordinary skill in the art at the time the invention to use the compound containing the phosphoryl group or containing the heterocyclic group shown above with an expectation of achieving a material having high sensitivity and high contrast.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,514,684 ('684). Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claimed invention encompasses the phosphoryl group and the polyphenol compounds..

13. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,696,237. Although the conflicting claims are not identical, they are not patentably distinct from each other because scope of the claimed invention encompasses the phosphoryl group and the polyphenol compounds.


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Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571)272-1328. The examiner can normally be reached on M-F (9:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea 
May 14, 2004

Thorl Chea
Primary Examiner
Art Unit 1752

